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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/662,742	09/15/2003	Michelle Ogg	10006921-2	1914
22879	7590	04/18/2005	EXAMINER	
HEWLETT PACKARD COMPANY P O BOX 272400, 3404 E. HARMONY ROAD INTELLECTUAL PROPERTY ADMINISTRATION FORT COLLINS, CO 80527-2400			BLACKMAN, ROCHELLE ANN J	
			ART UNIT	PAPER NUMBER
			2851	

DATE MAILED: 04/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/662,742

Applicant(s)

OGG ET AL.

Examiner

Rochelle Blackman

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 December 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 9-12, 15 and 16 is/are rejected.
- 7) ☒ Claim(s) 6-8, 13, 14 and 17 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 September 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Terminal Disclaimer

The terminal disclaimer filed on December 22, 2004 disclaiming the terminal portion of any patent granted on this application, which would extend beyond the expiration date of U.S. Patent No. 6,714,731, has been reviewed and is accepted. The terminal disclaimer has been recorded.

Drawings

It is noted Applicants stated, under REMARKS on pg. 16 of arguments filed December 22, 2004, they have amended Figure 1 to add "Prior Art" and hereby submit Replacement Sheet 1/3 hereto, however Replacement Sheet 1/3 was not present in Applicants' amendment filed December 22, 2004. Therefore, the objection to the Drawings still stands as follows:

Figure 1 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.121(d)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

Claims 1-17 are objected to because of the following informalities: claims 1 and 17 recite the limitation "the position" in line 4 of the claims; claims 10, 11, and 17 recite the limitation "the initial position" in lines 2 and/or 5 of the claims; and claim 16 recites the limitation "the second zoom lens" in line 4 of the claim. There is insufficient antecedent basis for these limitations in these claims. Claims 2-9 and 12-16 fall with their parent claim. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1-5 and 9-12 are rejected under 35 U.S.C. 102(b) as being anticipated by Takaoka, JP Patent No. 2001-033683.

Regarding claim 1, Takaoka discloses a method for controlling a lens group having a focus lens (see 14, 34 of Drawings 1-4) and a zoom lens group (see 12, 32 of Drawings 1-4) along an optical axis (see function of elements in Drawings 1-4 along with the description of the function of "focus lens" 14 and "zoom lens group" 12 in paragraphs [0025]-[0040]), where the zoom lens group includes at least one zoom lens (see 12), comprising: receiving input to change the position of a selected one of the focus lens and the zoom lens group (although not shown, this considered to be the

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function of the switches used to control the zooming of “zoom lens group” 12 and focusing of “focus lens” 14); and separately controlling the positions of the focus lens and the zoom lens group along the optical axis (the positions of the “focus lens” 14 and “zoom lens group” 12 are considered to be “separately controlled” because the positions of the “focus lens” 14 and “zoom lens group” 12 are controlled so that sleeve 32 of “zoom lens group” 12 and sleeve 34 of “zoom lens group” 12 do not collide – see paragraph [0025]) such that the focus lens and the zoom lens approach no closer to one another than a selected minimum safe distance, for any selected magnification provided by the zoom lens group and the focus lens (the minimum permissible distance that is determined between the sleeves 32 and 34 so they don’t collide which is the limiting position or prescribed allowable position – see SOLUTION under Abstract, is considered to be the “minimum safe distance” between the focus lens and zoom lens, in addition, “focus lens” 14 and “zoom lens” 12 are “separately controlled”, therefore they are capable of performing the function of approaching “no closer to one another than a selected minimum safe distance, for any selected magnification” provided by the “focus lens” 14 and “zoom lens” 12).

Regarding claim 2, Takaoka discloses wherein said receiving comprises receiving input to change the position of the focus lens (although not shown, this is considered to be the function of the switch used to control the focusing of “focus lens” 14, which includes changing the positioning of “focus lens” 14).

Regarding claim 3, Takaoka discloses wherein said separately controlling comprises determining the initial position of the at least one zoom lens (this considered

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to be an inherent function of controlling "at least one zoom lens" 12, while carry out the process of zooming with "at least one zoom lens" 12, such as moving it to a position different from another position, an "initial position" has to be determined).

Regarding claim 4, Takaoka discloses wherein said separately controlling comprises determining a permissible working range (the "permissible working range" range is considered to be the range in which the "focus lens" 12 and "zoom lens" 14 are permitted to move without the sleeves of the lens colliding).

Regarding claim 5, Takaoka discloses further comprising moving the focus lens to the best focus position within said permissible working range (this is considered to be the function of moving "focus lens" 14 to an in focus position, which is usually the best possible focus position, once the zooming of "zoom lens" 12 has been completed).

Regarding claim 9, Takaoka discloses wherein said receiving comprises receiving input to change the position of the zoom lens group (although not shown, this is considered to be the input received by operating the switch used to control the focusing of "focus lens" 14, which includes changing the positioning of "focus lens" 14).

Regarding claim 10, Takaoka discloses wherein said separately controlling comprises determining the initial position of the focus lens and the focal distance associated with said initial position (this considered to be an inherent function of controlling "focus lens" 14, while carry out the process of focusing with "focus lens" 14, such as moving it to a position different from another position, an "initial position" has to be determined).

Regarding claim 11, Takaoka discloses wherein said separately controlling comprises determining the initial position of at least one zoom lens (this considered to be an inherent function of controlling "at least one zoom lens" 12 - while carrying out the process of zooming with "at least one zoom lens" 12, such as moving it to a position different from another position or the last position the lens was in, an "initial position" has to be determined).

Regarding claim 12, Takaoka discloses further comprising moving at least one zoom lens a discrete amount along the optical axis to a new position in the direction associated with said received input (this is considered to be an inherent function of controlling "at least one zoom lens" 12 – while carrying out the process of zooming with the "at least one zoom lens" 12, the position that the lens is moved to that is different from another position or the last position the lens was in, would be the "new position").

2. Claims 1-5 and 9-12 rejected under 35 U.S.C. 102(b) as being anticipated by Thomas (U.S. Patent No. 4,161,756).

Regarding claim 1, Thomas discloses a method for controlling a lens group having a focus lens (see 17 of Fig. 1) and a zoom lens group (see 1 and 2 of Fig. 1) along an optical axis (see function of all elements in Figs. 1-3), where the zoom lens group includes at least one zoom lens (see 1 and 2 of Fig. 1), comprising: receiving input to change the position of a selected one of the focus lens and the zoom lens group (see function of 3-8, 9-16, 19, 21, and 27 and see output leads 30-38 in Figs. 1-3); and separately controlling the positions of the focus lens and the zoom lens group along the

optical axis such that the focus lens and the zoom lens approach no closer to one another than a selected minimum safe distance, for any selected magnification provided by the zoom lens group and the focus lens ("focus lens" 17, "zoom lens" 1, and "zoom lens" 2 are all "separately controlled", therefore they are capable of performing the function of approaching "no closer to one another than a selected minimum safe distance, for any selected magnification" provided by "zoom lens group" 1, 2 and "focus lens" 17).

Regarding claim 2, Thomas discloses wherein said receiving comprises receiving input to change the position of the focus lens (see function of 7, 8, 19, 21, and 27 and see output leads 33, 35, 36, and 38 of Figs. 1-3).

Regarding claim 3, Thomas discloses wherein said separately controlling comprises determining the initial position of the at least one zoom lens (see function of 3-8, 9-16, 19, and 21 and see output leads 30-32, 34, 36, and 37 of Figs. 1-3 – when the zooming of "zoom lens" 1 and 2 are carried out, the "initial position" of the lens are considered to be determined at the time).

Regarding claim 4, Thomas discloses wherein said separately controlling comprises determining a permissible working range (see function of 7, 8, 19, 21, and 27 and see output leads 33, 35, 36, and 38 of Figs. 1-3 and also see col. 2, lines 51-54).

Regarding claim 5, Thomas discloses further comprising moving the focus lens to the best focus position within said permissible working range (see function of 7, 8, 19, 21, and 27 and see output leads 33, 35, 36, and 38 of Figs. 1-3 and also see col. 2,

lines 51-54 – focus positions including a “best focus position” is considered to be whatever position “focus lens” 17 is driven to focus the objective upon objects at different distances).

Regarding claim 9, Thomas discloses wherein said receiving comprises receiving input to change the position of the zoom lens group (also see function of 3-8, 9-16, 19, 21 and see output leads 30-32, 34, 36, and 37 of Figs. 1-3 – changing a position of “zoom lens group” 1 and 2 is considered to part of the zooming of “zoom lens group” 1 and 2 at the time).

Regarding claim 10, Thomas discloses wherein said separately controlling comprises determining the initial position of the focus lens and the focal distance associated with said initial position (also see function of 7, 8, 19, 21, and 27 and see output leads 33, 35, 36, and 38 of Figs. 1-3 - when the focusing of “focus lens” 17 is carried out, the “initial position” of the lens are considered to be determined at that time).

Regarding claim 11, Thomas discloses wherein said separately controlling comprises determining the initial position of at least one zoom lens (also see function of 3-8, 9-16, 19, and 21 and see output leads 30-32, 34, 36, and 37 of Figs. 1-3 - when the zooming of “at least one zoom lens” 1 and/or 2 are carried out, the “initial position” of the lens is considered to be determined at the time).

Regarding claim 12, Thomas discloses further comprising moving at least one zoom lens a discrete amount along the optical axis to a new position in the direction

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associated with said received input (also see function of 3-8, 9-16, 19, and 21 and see output leads 30-32, 34, 36, and 37 of Figs. 1-3 – this considered to be executed at the time of zooming the “at least one zoom lens” 1 and/or 2).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 15 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thomas (U.S. Patent No. 4,161,756) in view of Haraguchi et al. (U.S. Patent No. 4,827,296).

Thomas discloses the claimed invention except for wherein said receiving comprises receiving input to “move the lens group to a power-off position”; and wherein said separately controlling comprises: “moving the focus lens to a home position; and moving the zoom lens group such that the second zoom lens moves to a second zoom lens retracted position, said moving the zoom lens group performed after said moving the focus lens, wherein said second zoom lens retracted position is substantially at a minimum safe distance from the home position along the optical axis”.

Haraguchi teaches moving a lens group to a power-off position (stowing, power supply turning-off position of L1, L2, and L3 of FIGS. 2); and moving a focus lens to a

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home position (moving L1 to a stowing, power supply turning-off position); and moving a zoom lens group (moving L2 and L3 to a stowing, power supply turning-off position) such that the second zoom lens moves to a second zoom lens retracted position, said moving the zoom lens group performed after said moving the focus lens, wherein said second zoom lens retracted position is substantially at a minimum safe distance from the home position along the optical axis (see col. 10, lines 49-53).

It would have been obvious to one ordinary skill in the art at the time the invention was made to provide the Thomas reference with the lens power supply turning-off action of Haraguchi, for the purpose of compactly arranging the lenses and preventing interference between the lenses (see col. 1, lines 30-35 and col. 10, lines 49-53).

Allowable Subject Matter

1. Claims 6-8, 13, and 14 would be allowable if rewritten to overcome the objection(s), set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.
2. Claim 17 would be allowable if rewritten or amended to overcome the objection(s) set forth in this Office action.

Response to Arguments

Applicant's arguments filed September 15, 2003 and December 22, 2004, with respect to the rejection of claims 1-5 and 9-12 by Takaoka, have been fully considered but they are not persuasive.

Applicants argue, under REMARKS on pg. 6, Takaoka has no disclosure or teaching of separately controlling positions of focus and zoom lenses according to a minimum safe distance and selected magnification, as in claim 1.

Examiner disagrees and maintains Takaoka teaches separately controlling positions of the focus and zoom lenses according to a minimum safe distance and selected magnification by separately controlling "focus lens" 14 and "zoom lens" 12 by preventing sleeve 32 of "zoom lens" 12 and sleeve 34 of "focus lens" 14 from colliding with each other. Contrary to applicant's arguments the sleeves 32 and 34 are part of "zoom lens" 12 and "focus lens" 14 because the sleeves are attached to the lens. If the sleeves are prevented from colliding, then so are the lenses.

Applicants further argue on pg. 7, Takaoka is silent to determining a permissible working range, as in claim 4, or moving the focus lens to the best focus position within said permissible working range, as in claim 5.

Takaoka teaches providing a minimum permissible distance between sleeves 32 and 34. If there is a minimum permissible distance between sleeves 32 and 34, then there is a minimum permissible distance between "zoom lens" 12 and "focus lens" 14. Controlling the positions of these lenses can only be executed according to this

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minimum permissible distance. Thus, Takaoka still teaches determining a "permissible working range".

Lastly, Applicant argues on pg. 8, the method includes moving at least one zoom lens a discrete amount along the optical axis to a new position in the direction associated with received input. Takaoka is silent as to moving discrete amounts as in a stepper motor.

Examiner disagrees. Moving a focus lens to a best focus position and moving a zoom lens to discrete amounts along an optical axis, contrary to applicant's remarks, is an inherent function of zooming and focusing lenses. Moving a focus lens to a best focus position is considered to be a main goal and basic function of focusing a lens and zooming a lens discrete amounts along an optical axis is a basic function of zooming a lens. Since Takaoka discloses focusing and zooming lenses 12 and 14, Takaoka still teaches moving a focus lens to a best focus position and moving a zoom lens to discrete amounts along an optical axis, as recited in claims 4 and 5. Further, it is noted that the features upon which applicant relies (i.e., moving discrete amounts as in a stepper motor) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Applicants have repeatedly argued that Takaoka, among other references of record, do not teach or disclose "separately controlling the positions of the focus lens and the zoom lens group along the optical axis such that the focus lens and the zoom lens approach no closer to one another than a selected minimum safe distance, for any

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selected magnification provided by the zoom lens group and the focus lens". With all due respect, Takaoka, as well as the prior art of record and/or any prior art that is not of record, would not design or intentionally design their lenses in their lens systems or apparatuses to collide with each other. Not even one of ordinary skill in the art would design or intentionally design their lenses in their lens systems or apparatuses to collide with each other. If these lenses are not colliding with each other, then there is some sort of distance that is created or formed between them while controlling the positions of these lenses. This would be controlling the positions of the lenses so they "approach no closer to one another than a selected minimum safe distance". The limitation, "such that the focus lens and the zoom lens approach no closer to one another than a selected minimum safe distance, for any selected magnification provided by the zoom lens group and the focus lens" is an intended function of controlling the positions of the focus lens and the zoom lens group. Thus, it is an intended function of controlling the positions of the focus and zoom lenses in the Takaoka reference as well as in the prior art of record and/or any prior art not of record.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rochelle Blackman whose telephone number is (571) 272-2113. The examiner can normally be reached on M-F 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Nguyen can be reached on (571) 272-2258. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

RB


JUDY NGUYEN
ADVISORY PATENT EXAMINER